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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,138	03/17/2004	Beat Kilcher	HAWE-57-107	7117
7590 12/23/2005			EXAMINER	
Donald F. Frei Wood, Herron & Evans, L.L.P. 2700 Carew Tower 441 Vine Street Cincinnati, OH 45202-2917			WERNER, JONATHAN S	
			ART UNIT	PAPER NUMBER
			3732	
DATE MAILED: 12/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/803,138	<b>Applicant(s)</b> KILCHER ET AL.	
	<b>Examiner</b> Jonathan Werner	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is in response to applicant's amendment received on 11/1/2005.
2. Examiner herein acknowledges and approves all corrections relating to applicant's specification, claims rejected under 35 U.S.C. 112, and claims rejected under 35 U.S.C. 101.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Dorfman (US D496,995 and US 6,923,761). Dorfman discloses a cheek and lip retractor for dentistry comprising first (12) and second (14) cheek engaging portions; upper (16) and lower (18) lip portions; each of said upper and lower lip portions comprising a lip shield (44b) and first and second mucosa pads (44a; each pair comprises the left side of the indentation and the right side of the indentation in Figure 2); and each of said mucosa pads are spaced apart from said lip shield (Figure 3) a distance sufficient to space the lips of a person wearing the retractor from a mucous membrane (Figures 8-9).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6-7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorfman (US D496,995 and US 6,923,761). In regard to claims 1 and 9, Dorfman discloses a dental retractor comprised of cheek portions (12,14) and lip portions (16,18) for the upper and lower lip; each of said lip portions comprising a lip shield (44b) and a pair of mucosa pads (44a; each pair comprises the left side of the indentation and the right side of the indentation in Figure 2) which are separate and spaced apart from said lip shield (Figure 3); each said lip shield defining a first surface for contacting the lip of a patient (inside surface of 44b; Figures 8-9); each said mucosa pad defining a second surface facing opposite said first surface for contacting a mucous membrane of a patient (outside surface of 44a; Figures 8-9); each of said cheek portions being connected to each of said lip portions by a flexible connecting element (20). Dorfman fails to show the flexible connecting element between the lip shield and one of the pair of mucosa pads, and instead shows the connecting element attached directly to the lip shield (Figure 3). However, it would be obvious to one having ordinary skill in the art at the time of applicant's invention to attach the connecting element to the lip portion at an area disposed between the mucosa pads and the lip shield or an area adjacent to either component of the lip portion since applicant has not disclosed any

particular advantage of doing so. As to claim 2, figure 6 discloses the retractor's connecting elements arranged in a curved plane. As to claim 3, Figure 1 of Dorfman shows the centerline of the lip shield (lengthwise along 44b) and the point of support of the mucosa pads on a mucous membrane (lengthwise along 44a) are located at a distance away from each other. As to claim 4, the previously described distance represents the approximate thickness of an individual's lips, which would be obvious to one having ordinary skill in the art to be in the range of approximately 10 mm to approximately 30 mm in order to properly ensure that the dentist has enough room to treat the front teeth region including the gingival tissue located therein. As to claim 6, Figure 2 shows cheek portions are in the form of flexible surfaces that are each connected to said connecting elements by a respective flexible web (20). As to claim 7, Dorfman's retractor has connecting elements designed and arranged so that the lip portions perform an essentially translational movement when closing the mouth as can be interpreted from Figures 8 and 9.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dorfman in view of Leal (US 5,199,872). Dorfman discloses a dental retractor as previously described but fails to show that the mucosa pads comprise rolls which are arranged to be slipped on a respective holder extending from the lip shield. Leal, however, teaches a dental retractor that has a lip shield (32a,34a) and a pair of mucosa pads (16,18; 36,38; 46,48), wherein each pad comprises a pair of rolls (52), each of which are arranged on a respective holder (12a, 14a) extending from said lip shield (Figures 4-5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to add a pair of rolls to each pair of mucosa pads in order to cushion the retractor frame between the gums and the lips of a patient as taught by Leal.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-4 and 6-7 have been considered but are moot in view of the new ground(s) of rejection. As to claim 1, applicant argues that Dorfman does not teach or suggest a cheek and lip retractor comprising a lip shield and a pair of mucosa pads with each said lip shield defining a first surface for contacting the lip of a patient (inside surface of 44b; Figures 8-9); each said mucosa pad defining a second surface facing opposite said first surface for contacting a mucous membrane of a patient (outside surface of 44a; Figures 8-9), whereby the lip of the patient will be lifted and spaced from the teeth and gingival tissue when installed in the patient's mouth (Figures 8-9). Applicant has not defined enough of the structure of the claimed mucosa pads to differentiate it from the mucosa pads disclosed in Dorfman. Examiner acknowledges applicants argument that Dorfman fails to show the flexible connecting element between the lip shield and one of the pair of mucosa pads and instead shows the connecting element attached directly to the lip shield (Figure 3). However, it would be obvious to one having ordinary skill in the art at the time of applicant's invention to attach the connecting element to the lip portion at an area disposed between the mucosa pads and the lip shield or an area adjacent to either component of the lip

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portion as shown by Dorfman since applicant has not disclosed any particular advantage of the claimed setup. As to claim 4, applicant argues that examiner has not cited any reference to support the assertion in the Office Action that the thickness of a person's lips is in the range of 10 mm to 30 mm. However, no reference is required to be cited since it would have been obvious to one having ordinary skill in the art at the time of applicant's invention that the thickness of a person's lips is in the range of 10 mm to 30 mm since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. For this reason, rejection of claims 1-4 and 6-7 stand rejected under 35 U.S.C 103(a).

7. As to claim 5, applicant argues that Leal does not teach or suggest a modification of Dorfman to have a pair mucosa pads separate and spaced apart from a lip shield. However, Leal does not have to show these attributes to make the 35 U.S.C. 103(a) rejection proper since Dorfman already disclosed a pair of mucosa pads separate and spaced apart from a lip shield as previously described. What Dorfman fails to show are mucosa pads that comprise rolls which are arranged to be slipped on a respective holder extending from the lip shield. Leal, however, teaches a dental retractor that has a lip shield (32a,34a) and a pair of mucosa pads (16,18; 36,38; 46,48), wherein each pad comprises a pair of rolls (52), each of which are arranged on a respective holder (12a, 14a) extending from said lip shield (Figures 4-5). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to add a

pair of rolls to each pair of mucosa pads in order to cushion the retractor frame between the gums and the lips of a patient as taught by Leal. For this reason, rejection of claim 5 stands rejected under 35 U.S.C 103(a).

8. Applicant's arguments directed to claims 1-7, see page 9, filed 11/1/05, with respect to rejections over Akihiro have been fully considered and are persuasive. The 35 U.S.C. 102(b) rejection of claims 1-3 and 6-7 over Akihiro has been withdrawn; the 35 U.S.C. 103(a) rejection of claim 4 over Akihiro has been withdrawn; and the 35 U.S.C. 103(a) rejection of claim 5 over Akihiro in view of Leal has been withdrawn.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Werner  
Examiner  
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12/20/05



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